



# OSAC Health Security Snapshot: Mumps in New Zealand



*Product of the Research & Information Support Center (RISC)*

*The following is based on open-source reporting. It is designed to give a brief snapshot of a particular outbreak.*

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## **Summary**

Auckland Regional Public Health Service (ARPHS) is reporting the [worst](#) outbreak of mumps -- 740 cases in 2017 alone -- since 1994. Other [sources](#) report 855 confirmed cases from September 2016 until November 2017, with more than one-third of cases impacting teens (10-19-year olds). Health authorities contend that New Zealand was “essentially free” of mumps in late 2016. The virus was [likely](#) brought to New Zealand by travelers from Pacific Islands, but cases have since been locally acquired. The outbreak is now making headlines because a second revered rugby player, this one diagnosed while on travel in London, may miss a pivotal game.

## **What is Breaking Out**

According to the U.S. Centers for Disease Control & Prevention (CDC), mumps (also called infectious parotitis) is a contagious virus spread from respiratory droplets (coughing, sneezing, spitting), from human-to-human contact, or from touching contaminated surfaces. Mumps is best known for the puffy cheeks and swollen jaw that it causes. This is a result of swollen salivary glands. Mumps is likely contagious before the salivary glands begin to swell and up to five days after the swelling begins.

Symptoms, which can appear 12-25 days (although 16-18 is more typical) after infection, include: fever, head/muscle ache, tiredness, loss of appetite, and swollen/tender salivary gland(s) under the ears or jaw. Some people exhibit mild or no symptoms. Treatment generally consists of pain management and infection control. Most people recover fully within a few weeks; however, without treatment, mumps can lead to serious complications such as meningitis, encephalitis, temporary deafness, and glandular swelling.

## **Where is it Occurring?**

Mumps remains a common disease in many parts of the world, including areas in Europe, Asia, the Pacific, and Africa, especially in populations that live in close and sustained contact, like universities, athletic teams, certain religious settings, and professional conferences. In 2017 alone, a number of outbreaks of mumps have been reported in the U.S., the UK, and Canada.

In the New Zealand outbreak, the vast majority of cases have been in Auckland, but cases are being reported on both islands.

## **When Does it Occur?**

Mumps outbreaks can occur any time of year. A major factor contributing to outbreaks is being in a crowded environment with a person who has mumps. Certain behaviors that result in exchanging saliva may also increase spread of the virus.

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## Who is Impacted?

The risk of exposure among travelers is high in many countries, including industrialized countries. Outbreaks tend to impact people 18-22 years old, and most have had the suggested two-dose vaccine. Mumps is likely underreported, as most adults presume they are immune and may not seek medical attention.

Specifically in the New Zealand outbreak, about 80% of the cases were not fully [vaccinated](#). ARPHS calls this 10-29-year old age group the “lost generation.” This group has a lower-than-average immunization rate due, in part, to: a now-debunked Measles, Mumps, and Rubella (MMR) vaccine controversy in 1998; and a change in the timing for the second dose in 2001. Further, national data [shows](#) that only 42% of Maori and 45% of Pacific children were fully immunized.

## Why Should I be Concerned?

Because MMR vaccinations are not universal, contracting mumps should be a consideration when traveling, particularly for travelers who do not have or are uncertain about their immunity. Mumps outbreaks can still occur in highly vaccinated communities, particularly in close-contact settings. Immunity from mumps may [wane](#) in certain individuals (not all), and sustained exposure to mumps may overcome the vaccine’s effectiveness.

For private-sector organizations with a presence in New Zealand, this outbreak may impact staff or employees who themselves may fall ill or may have ill family members. Work-from-home and remote meeting provisions, sanitation stations, and/or vaccination promotion may be considerations to help avoid the mumps virus.

## How do I Respond?

There is a widely used combined vaccine for MMR and another that includes Varicella (MMRV), given in two doses at least 28 days apart. Very few patients experience side effects or adverse reactions to the vaccine. CDC advises that travelers over the age of six months who do not have mumps immunity should be vaccinated with the MMR vaccine. The mumps component of the MMR vaccine is about 88% effective when a person gets two doses. MMR vaccine prevents most, but not all, cases of mumps and complications caused by the disease. However, for those in a high risk environment with a mumps outbreak, a third dose of the mumps vaccine may be warranted to decrease the risk to others and stop the outbreak.

ARPHS has [urged](#) local District Health Boards to provide over 100,000 free ‘catch-up’ doses of the MMR vaccine to bring an end to the outbreak in New Zealand.

The CDC offers [guidance](#) to avoid the mumps virus:

- Wash your hands often with soap and water or use hand sanitizer (containing at least 60% alcohol).
- Do not touch eyes, nose, or mouth, and cover your mouth and nose with a tissue or your sleeve (not your hands) when coughing or sneezing.
- Avoid close contact with people who are sick.

Other [guidance](#) to reduce transmission includes:

- Encourage isolation
  - Specifically for university settings, this may include arranging for students to miss class and take make-up examinations without penalty.
  - This may also include arranging food delivery, so as not to break isolation.
- Provide face masks for those in close, sustained proximity.

## **For More Information**

For additional information on global diseases and pandemic outbreaks, please contact OSAC's [Global Health and Outbreaks Analyst](#). For information on the security climate in New Zealand, please contact OSAC's [East Asia & Pacific Team](#).

### Other OSAC Sources

[Mumps in Ireland](#) (2015)

New Zealand 2017 [Crime and Safety Report](#)

### CDC Sources

[Mumps page](#)

[Mumps Vaccine page](#)

[Mumps Yellow Book](#)

### Other Sources

[Medline Plus](#)

[Outbreak News Today](#)